

Notice of Allowability

Application No.

10/760,585

Examiner

LaTanya Bibbins

Applicant(s)

IIDA ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to supplemental amendment filed 18 January 2007.
2. ☒ The allowed claim(s) is/are 1-3, 6-9, 11-14, and 16-18 (to be renumbered 1-14).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

WAYNE YOUNG
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

1. In the remarks filed on December 12, 2007, Applicant amended claims 1, 9, 11, 13, and 14, added claims 17 and 18, cancelled claims 4, 5, 10, and 15, and submitted arguments for allowability of pending claims 1-3, 6-9, 11-14, and 16-18.

In the Supplemental Response filed on January 18, 2007, Applicant further amended claims 1, 9, 11, and 14, and submitted arguments for allowability of pending claims 1-3, 6-9, 11-14, and 16-18.

Response to Arguments

2. Applicant's arguments, filed January 18, 2007, with respect to claims 1-3, 6-9, 11-14, and 16-18 have been fully considered and are persuasive. The 35 U.S.C. 102(b) rejections of claims 1-3, 6, 9, 11, and 12, and the 35 U.S.C. 103(a) rejections of claims 7, 8, 13, 14, and 16 have been withdrawn.

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Randi B. Isaacs on April 12, 2007.

The application has been amended as follows:

In the claims:

Amend claims 9, 13, 17, and 18 as indicated below. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~.

Claim 9

A method of playing an optical disk formed by providing a recording region for recording user data and a management region having an identification information region for recording disk-specific identification information on a substrate, the method comprising the steps of:

focusing a laser beam from a light source on the optical disk;

~~serving~~ servoing the focused laser beam on at least one of a groove and a land, the groove including a groovetrack and the land including a landtrack;

detecting a signal in the management region and a signal of the disk-specific identification information by use of the laser beam being ~~served~~ servoed on; and

detecting a change in a signal level of the detected disk-specific identification information based on a predetermined ~~threshold level~~ threshold level,

wherein the management region has a flat portion formed by sectioning part of at least one of the groove and the land in a given step,

wherein the disk-specific identification information is recorded as an irreversible record mark on the flat portion adjacent to a recording track and at least one of the groovetrack and the landtrack, and the focused laser beam is servoed on the

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recording track adjacent to at least one of the groovetrack and the landtrack recorded the disk-specific identification information as the irreversible record mark, and

wherein the disk-specific identification information is detected as an information signal by crosstalk from at least one of the groovetrack and the landtrack during playback.

Claim 13

The method of playing an optical disk according to claim 9,

wherein a signal of the disk-specific identification information recorded on the at least one of the groove and the land other than the flat portion is used as a synchronization signal, and

authenticity of the disk-specific identification information ~~is judged~~ is judged,

wherein the disk-specific identification information is recorded as the irreversible record mark.

Claim 17

The optical disk according to claim 1,

wherein three different states of signal levels detecting the a signal in the management region are mixed in an amplitude fluctuation,

wherein the three different states are a signal level of the flat portion,

~~wherein~~ a signal level of the disk-specific identification information recorded as the irreversible record mark on the flat portion, and

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wherein a signal level of the disk-specific identification information recorded as the irreversible record mark on the at least one of the groovetrack and the landtrack other than the flat portion.

Claim 18

The method of playing an optical disk according to claim 9,
wherein three different states of signal levels detecting the signal in the management region are mixed in an amplitude fluctuation,
wherein the three different states are a signal level of the flat portion,
wherein a signal level of the disk-specific identification information recorded as the irreversible record mark on the flat portion, and
wherein a signal level of the disk-specific identification information recorded as the irreversible record mark on the at least one of a groovetrack and a landtrack other than the flat portion.

Comments:

Claims 9, 13, 17, and 18 were amended for purposes of clarity and to correct typographical errors. Claim 17 was also amended to provide proper antecedent basis for "the signal in the management region."

Allowable Subject Matter

4. Claims 1-3, 6-9, 11-14, and 16-18 (to be renumbered 1-14) are allowed.

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5. The following is an examiner's statement of reasons for allowance:

Regarding claims 1-3, 6-8, and 17, none of the references of record, alone or in combination, suggest or fairly teach an optical disk comprising: a groove and a land formed on a substrate, the groove including a groovetrack and the land including a landtrack; a recording region formed on the substrate for recording user data; and a management region formed on the substrate and provided outside the recording region including an identification information region for recording disk-specific identification information, wherein the management region has a fiat portion formed by sectioning part of at least one of the groove and the land, and **wherein the disk-specific identification information is recorded as an irreversible record mark on the fiat portion adjacent to a recording track and at least one of the groovetrack and the landtrack** in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper.

Regarding claims 9, 11-13, and 18, none of the references of record, alone or in combination, suggest or fairly teach a method of playing an optical disk formed by providing a recording region for recording user data and a management region having an identification information region for recording disk-specific identification information on a substrate, the method comprising the steps of: focusing a laser beam from a light source on the optical disk; servoing the focused laser beam on at least one of a groove and a land, the groove including a groovetrack and the land including a landtrack; detecting a signal in the management region and a signal of the disk-specific identification information by use of the laser beam being servoed on; and detecting a

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change in a signal level of the detected disk-specific identification information based on a predetermined threshold level, wherein the management region has a flat portion formed by sectioning part of at least one of the groove and the land in a given step, **wherein the disk-specific identification information is recorded as an irreversible record mark on the flat portion adjacent to a recording track and at least one of the groovetrack and the landtrack, and the focused laser beam is servoed on the recording track adjacent to at least one of the groovetrack and the landtrack recorded the disk-specific identification information as the irreversible record mark, and wherein the disk-specific identification information is detected as an information signal by crosstalk from at least one of the groovetrack and the landtrack during playback in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper.**

Regarding claims 14 and 16, none of the references of record, alone or in combination, suggest or fairly teach an optical disk drive including an optical head for focusing a laser beam on an optical disk, a playback signal processing circuit for processing a signal detected from the optical disk, a controller, a servo control circuit, and a spindle motor, the playback signal processing circuit comprising: a circuit for detecting a change in a signal level of disk-specific identification information recorded on the optical disk based on a predetermined threshold level; and a circuit for judging authenticity of the disk-specific identification information, wherein the optical disk has a recording region formed on a substrate for recording user data and a management region formed on the substrate and provided outside the recording region including an

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identification information region for recording disk-specific identification information, wherein the management region has a flat portion formed by sectioning part of at least one of a groove and a land, the groove including a groovetrack and the land including a landtrack, **wherein the disk-specific identification information is recorded as an irreversible record mark on the flat portion adjacent to a recording track and at least one of the groovetrack and the landtrack**, wherein the predetermined threshold level is respectively set between each of the signal level of the flat portion and the signal level of the disk-specific identification information, and the signal level of the disk-specific identification information recorded on the at least one of the groovetrack and the landtrack other than the flat portion, and wherein the signal of the disk-specific identification information recorded as the irreversible record mark is used as a synchronization signal, and authenticity of the disk-specific identification information is judged in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Citation of Relevant Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Spruit (US Patent Number 6,407,969 B1) discloses an information carrier with a pattern of substantially parallel tracks, each track includes a number of sectors and each sector includes an address-information area and an accompanying data area. In the address information areas, the so-called headers immediately follow the data areas. These headers are composed of at least one address information field and at least one synchronization field and the address information areas in adjacent tracks overlap each other. The address information areas are positioned in between the data areas. The data areas are positioned in land/groove areas. The flat address information areas then interrupt this land/groove structure. The address information areas are used for storing address information areas of a first type and address information areas of a second type. The address information areas of a first type include sync/address field followed by a free space, whereas the address information areas of a second type include a free space followed by a sync/address field. These address information areas contain address information and indicate the beginning of a data area.

Lee et al. (US PGPub 2003/0048725 A1) discloses an optical recording medium with land and groove tracks and a header area on which header information is recorded and a user data area on which user data is recorded. The header area on which pre-pits are formed includes a physical identification data (PID) region to record addressing information, an ID error detection (IED) region to store ID error detection information, and a header flag region which is formed as a mirror region.

Murakami et al. (US Patent Number 5,499,229) discloses an optical disk where information is recorded on both grooves and lands as guide tracks for guiding a light

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beam. A plurality of series of pits representing address information are formed in the grooves so that the series of pits in a groove and the series of pits in the adjacent grooves are located in different radial directions of the optical disk. When the light beam scans the track on the land, the address information is obtained by crosstalk of the series of address pits formed in the track on the groove. This structure enables the management of the addresses of tracks having thereon no address pits. When obtaining the address information by reproducing the series of address pits on the groove, since no crosstalk occurs, accurate address information is obtained.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaTanya Bibbins whose telephone number is (571) 270-1125. The examiner can normally be reached on Monday through Friday 7:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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SUPERVISORY PATENT EXAMINER